

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 April 2004 (22.04.2004)

PCT

(10) International Publication Number
WO 2004/033853 A1

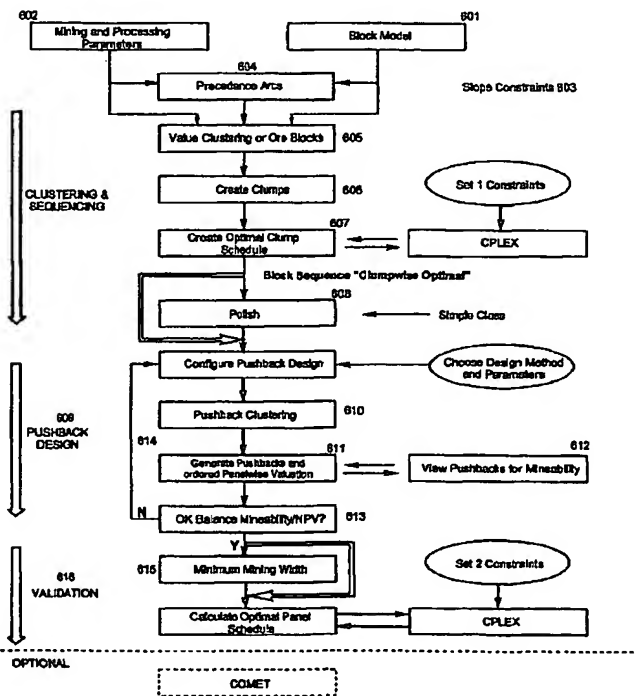
(51) International Patent Classification⁷: E21C 41/26
(21) International Application Number: PCT/AU2003/001298
(22) International Filing Date: 2 October 2003 (02.10.2003)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
2002951891 9 October 2002 (09.10.2002) AU
2002951893 9 October 2002 (09.10.2002) AU
2002951894 9 October 2002 (09.10.2002) AU
2002951896 9 October 2002 (09.10.2002) AU
2003901021 5 March 2003 (05.03.2003) AU

(72) Inventors; and
(75) Inventors/Applicants (for US only): FROYLAND, Gary, Allan [AU/AU]; 7/76 Type Street, Burnley, Victoria 3121 (AU). MENABDE, Merab [AU/AU]; 1/20 Bendigo Street, Cheltenham, Victoria 3192 (AU).
(74) Agent: SMOORENBURG PATENT & TRADE MARK ATTORNEYS; Locked Bag 9, Kangaroo Ground, VIC 3097 (AU).
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, SY, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: SYSTEM AND METHOD(S) OF MINE PLANNING, DESIGN AND PROCESSING

(57) Abstract: The present invention relates to the field of extracting resource(s) from a particular location. In particular, the present invention relates to the planning, design and processing related to a mine location in a manner based on enhancing the extraction of material considered of value, relative to the effort and time in extracting that material. The present application discloses, amongst other things, a method of and apparatus for determining slope constraints, determining a cluster of material, determining characteristics of a selected portion of material, analysing a selected volume of material, propagating clusters, forming clusters, mine design, aggregation of blocks into collections or clusters, splitting of waste and ore in clumps, determining a selected group of blocks to be mined, clump ordering and identifying clusters for pushback design.



KlumpKing Top-Level Flow Chart